Name: _____

at1110paper__practice__test (v15)

1. Expand the following expression into standard form.

$$(5x + 6)(8x - 3)$$

$$40x^2 - 15x + 48x - 18$$
$$40x^2 + 33x - 18$$

2. Solve the equation.

$$(4x - 9)(7x - 6) = 0$$

$$x = \frac{9}{4} \qquad x = \frac{6}{7}$$

3. Expand the following expression into standard form.

$$(5x - 7)(5x + 7)$$

$$25x^2 + 35x - 35x - 49$$
$$25x^2 - 49$$

4. Expand the following expression into standard form.

$$(4x + 9)^2$$

$$16x^2 + 36x + 36x + 81$$
$$16x^2 + 72x + 81$$

5. Factor the expression.
$$x^2 + 4x - 21$$

$$(x - 3)(x + 7)$$

6. Factor the expression.
$$9x^2 - 25$$

$$(3x - 5)(3x + 5)$$

7. Solve the equation with factoring by grouping.
$$20x^2 - 15x - 8x + 6 \ = \ 0$$

$$(5x - 2)(4x - 3) = 0$$
$$x = \frac{2}{5} \qquad x = \frac{3}{4}$$

8. Solve the equation.
$$9x^2 + 39x - 39 \ = \ 2x^2 - 5x - 4$$

$$7x^2 + 44x - 35 = 0$$
$$(7x - 5)(x + 7) = 0$$
$$x = \frac{5}{7} \qquad x = -7$$